

DIN EN 1151-1:2006-11 (E)

Pumps - Rotodynamic pumps - Circulation pumps having a rated power input not exceeding 200 W for heating installations and domestic hot water installations - Part 1: Non-automatic circulation pumps, requirements, testing, marking

Contents		Page
Foreword		3
Introduction		4
1	Scope	5
2	Normative references	5
3	Terms and definitions	6
4	Symbols and units	7
5	Performance and safety requirements	7
5.1	Hydraulic characteristic	7
5.2	Rated power	7
5.3	Starting characteristics	7
5.4	Resistance to internal pressure	7
5.5	Temperature resistance	7
5.6	Resistance to thermal cycling	7
5.7	Venting and deblocking	8
5.8	Material- and design requirement	8
5.9	Fluid and structure borne noise emission	8
6	Test methods	8
6.1	General	8
6.2	Testing of the hydraulic characteristic	8
6.2.1	General	8
6.2.2	Test conditions	9
6.2.3	Testing of hydraulic performance	10
6.3	Measurement of rated power input	11
6.4	Starting conditions	11
6.5	Testing of resistance to internal pressure	11
6.6	Testing of temperature resistance	11
6.7	Testing of resistance to thermal cycling	12
6.7.1	Motor supply voltage	12
6.7.2	Intermittent operation	12
6.8	Venting and deblocking	13
6.9	Toxicity, biological and microbiological test	13
7	Information for use	13
7.1	General	13
7.2	Instruction handbook	13
7.3	Marking	14
Annex A (informative) Additives		15
Bibliography		16